The Voice of the On-Site Power Generating Industry

Easily Big POWER-GEN 2007 Recap

Distributor's

Dealing Effectively

With the Competition

Corner

EGSA News

- Two-Tiered Schools for 2008
- 2008 EGSA Power Pavilion at POWER-GENSold Out

Protecting Your Power

Specifying Outdoor Generator Enclosures

Going GreenThe Rise of Biofuels

The Rise of Biofuels in Power Generation



Electricity from Dairy Cattle

A midwestern dairy farm uses manure from its herd of dairy cattle to produce biogas fuel to power an engine driven co-generation unit. Using manure digester technology, the unit generates electricity for the farm and the excess power is sold to the local utility grid. Engine heat warms the digester mix to 110°F. The digester slurry and dry products are sterile and odorless. The slurry is an excellent fertilizer and the dry product makes an ideal soft bedding material for the dairy cattle.



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Check out these strategies for "Dealing Effectively With The Competition;" Page 20.



On the Cover: Walk-in generator enclosures on the roof of the London Home Office in the U.K. Photo courtesy of Cummins Power Generation; Page 14.

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Conferences

EGSA 2008 Annual Spring Convention

March 16-18, 2008; Santa Ana Pueblo, NM

The Association's Annual Convention of Members. Speakers will cover business and technical aspects of On-Site Power Generation and current industry trends. For additional information, visit www.EGSA.org or call (561) 750-5575.

EGSA 2008 Fall Technical & Marketing Conference

September 7-9, 2008; Atlanta, GA

Speakers will cover business and technical aspects of On-Site Power Generation and current industry trends. For information, visit www.EGSA.org or call (561) 750-5575.

EGSA 2009 Annual Spring Convention

March 15-17, 2009; San Antonio, TX

The Association's Annual Convention of Members. Speakers will cover business and technical aspects of On-Site Power Generation and current industry trends. For additional information, visit www.EGSA.org or call (561) 750-5575.

EGSA 2009 Fall Technical & Marketing Conference

September 13-15, 2009; Colorado Springs, CO Speakers will cover business and technical aspects of On-Site Power Generation and current industry trends. For information, visit www.EGSA.org or call (561) 750-5575.

Schools

EGSA On-Site Power Generation Basic Schools

*To be held concurrently with POWER-GEN International

EGSA On-Site Power Generation Advanced Schools

The most complete overview of an On-Site Electric Power Generation System available anywhere today. Now offering Continuing Education Units (CEUs)! For information, visit www.EGSA. org or call (561) 750-5575.

Industry Trade Shows

POWER-GEN International 2008

December 2-4, 2008; Orlando, FL

The world's biggest show for power generation, featuring the EGSA On-Site Power Pavilion. For exhibit information, contact EGSA at (561) 750-5575, ext. 205 or e-mail Jalane Kellough at *J.Kellough@EGSA.org*.

Look for more industry events in our up-to-date calendar on the web at www.EGSA.org. EGSA Members: To list your meetings here, fax your information to (561) 395-8557.



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Throughout every issue of Powerline, trademark names are used. Rather than place a trademark symbol at every single such occurrence, we aver here that we are using the names in an editorial fashion only. EGSA has no intention of infringing on these trademarks.

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Gary Kidwell 2007 EGSA President

The Benefits of Membership

If you're like most people, you're so busy it's a wonder you get anything done until the Holidays are long past. You have your home/leisure life on one hand and your business/professional life on the other. Balancing bills and purchase orders, children and employees, you walk a tightrope every day fighting fires, solving problems and hoping you haven't overlooked anything or anyone.

While EGSA can't be of much help with your personal life, we have crafted a wide range of membership benefits that will help ease the stress and toil of your professional life.

Exhibit space opportunities at POWER-GEN International, for example, allow your firm to ensure that it is aligned with—and active in—the world's largest event for power generation, transmission and distribution products and services. And thanks to the popularity of EGSA's On-Site Power Pavilion and its physical positioning at POWER-GEN, On-Site Power—and your firm—are now literally in the forefront of today's electrical generation, transmission and distribution industry. Pass on this opportunity and you and your firm could lose visibility in the marketplace.

Statistical reports like the Quarterly Generator Shipment Survey give you timely information about your market and your industry that is not available anywhere else. And on a side note, I can't emphasize how important it is for every generator manufacturer member to participate in this report. Only your complete participation will ensure that we continue to have a clear picture of what's going on—right now—in our industry. Industry information, in itself, is another important benefit of membership. It's delivered to you through the Association's publications, Advisories, and Action Alerts. Ignore this important membership benefit and you and your firm could lose sight of where the industry is headed.

Uniting the On-Site Power Industry

Perhaps the most important benefit of membership in EGSA is the opportunity to network with your peers at conferences and meetings where there is ample opportunity to meet in a relaxed atmosphere. Developing business contacts among On-Site Power Manufacturers, Distributor/Dealers,

Reps, and others is crucial to the success of every individual business. Forgo these opportunities and you and your firm could lose track of the industry's top individual players.

EGSA conferences and meetings provide further benefit to you and your firm through education. Thanks to a long held belief that education is the key to improving our industry, the Association has an excellent reputation for providing high-quality educational programs—including our new, two-tiered (Basic and Advanced) On-Site Power Schools. Fail to seize these opportunities and you and your firm could fall behind the competition as you lose touch with the industry's latest innovations.

Finally, EGSA membership allows you to make an impact on the environment in which your firm conducts business thanks to the efforts of the Association's committees. Whether commenting on standards, gathering statistics, furthering international trade, planning educational programs, or acting as a government liaison, your participation can make a real difference in the On-Site Power industry. If you don't participate, you and your firm are assured of "business as usual" with the same headaches, confusing standards and frustrating regulations day after day.

All in all, membership in EGSA delivers a wide range of benefits to you and your firm. You both benefit because EGSA places a high value on the individual and maintains that commitment through its educational programs with initiatives such as Continuing Education Units (CEUs) and our Generator Technician Certification program. However, if you don't participate, if you don't get involved in the Association and actively support its endeavors, your benefits are greatly diminished. It may sound trite, but it's certainly true: you get what you pay for. Membership is not just a monetary investment, it's an investment of time, energy and effort. The more you participate, the greater your return on investment will be. Manage this investment wisely. Nurture it and your rewardsboth now and in the future—will be great. Neglect your investment and it will stagnate. The choice is yours. Choose well!



George Rowley EGSA Director of Education



Employers: Are your Certified Techs using the logo?

Certified Techs: Are you using the logo?

Certification Program Update

Interest in, and utilization of, the EGSA Generator Systems Technician Certification program is strong and the number of Certified Techs is increasing. Although the number of techs taking the test each month varies, an average of about seven techs per month passed the test in 2007. As of the end of December, 129 of the 163 technicians who took the test passed it. The overall "pass rate" is 79% but the "pass rate" for 2007 was 90%.

The Demographics: Georgia and Ohio Tie for Lead!

Here's a list of how many Certified Techs there are in each of the states:

- 13—*GA* and *OH*;
- 11—*VA*;
- 10—FL;
- Nine—*AZ*:
- Seven—*TX*;
- Six—MI and NC;
- Five—*NJ*;
- Four—CA, NY, and PA;
- Three—MA;
- Two—CO, ID, IN, MD, MO, SC, WI, and WV;
- One—AK, IA, IL, KY, LA, MN, TN, and UT.

Not Just a Test for U.S. Techicians

Ten Certified Techs reside outside of the United States; four in Trinidad and six in Canada. Therefore, about 8% of the Certified Technicians live outside the USA!

Perhaps the best measure of the strong interest in the program is the volume of test Study Guides that have been sold; 442 Study Guides had been sold as of the end of December. As a convenience to those preparing to take the test, a Study Guide/ On-Site Power Reference Book "bundle" became available in late September and nine potential test-takers have purchased them.

And the Certified Techs are showing off the results of their effort. 311 individual logo items (uniform patches, baseball caps, and decals), that can be used only by EGSA Certified Technicians have been sold. The logo items enable each certified tech to demonstrate that they have passed a rigorous test and have proven skills and knowledge.

The Technician Certification program is administered for EGSA by Ferris State University. Tests, test preparation materials, and logo items must be ordered from Ferris State. Order forms and extensive information about the program will be found elsewhere in this magazine and on the EGSA web site www.EGSA.org. If you have questions and

have not found the answers, please contact George Rowley, EGSA Director of Education, via e-mail at *G.Rowley@EGSA.org*.

Preparing for our New Reference Book

Progress continues as we prepare for the publication of the new edition of the reference book. Of course, complete realization of the Book Editorial Committee's plan for the book is contingent upon identifying and recruiting qualified authors to write the chapters.

The final draft of the Section and Chapter sequence and content has been reviewed and approved by the Book Editorial Committee and the Education Committee. The next step will be refinement and approval of the Author Guidelines and Author Selection Guidelines and process.

In addition to updates to every chapter, the committee plans a number of significant improvements to the new edition. The sequence of Sections and Chapters has been changed, several new chapters will be added, several chapters have been combined, and many chapters will be reconstituted through the addition of new topics. Of course, illustrations and graphics will be updated where appropriate. At this time, the committee envisions 10 Sections with 39 Chapters compared to the 4th Edition's 8 Sections and 39 Chapters. We also plan to have the index compiled by a professional indexing service and will attempt to determine if color graphics and illustrations are economically feasible. Watch for a "Call for Authors" (and Reviewers) in the not-too-distant future.

New Power Schools Format

We have heavily promoted our new two-tiered school over the past several months. And deservedly so, because this is the most significant curriculum change in our school's 25-year history. We feel that the new format will be of significant benefit to industry personnel because content will be focused on attendees' experience level and the type of work they do.

The revised school, consisting of a Basic School and an Advanced school, will debut in February. Information about the school and our recommendations as to who should attend which level will be found elsewhere in this magazine and a brochure can be downloaded from the EGSA web site.

Direct questions about EGSA Education programs via an e-mail to George Rowley, EGSA Director of Education at *G.Rowley*@EGSA.org.



Techs Stand Apart from the Competition with the EGSA Certified Electrical Generator Systems Technician logo

Do you or your techs use this patch? This is the patch used only by EGSA Certified Technicians. It sends a clear message that the tech and the employer are special. The tech has proven skill and knowledge through passing a rigorous test; The employer is committed to excellence and high standards. Techs who have earned the title "EGSA Certified Electrical Generator Systems Technician"—use the logo with pride!



EGSA Member Item # (Specify)	Non-Member Item # (Specify)	Quantity	Logo Item Description	EGSA Member? (Specify)	Non-Member? (Specify)	Item Total
□ FSU 093	□ FSU 094		Logo Uniform Patch —These highly detailed uniform patches contain over 15,000 stitches to highlight our copyrighted line drawing genset logo and proclaims, in gold lettering, that the wearer is an "EGSA Certified Electrical Generator Systems Technician."	□ \$3	□ \$6	
□ FSU 120	□ FSU 121		Baseball Cap—These distinctive EGSA blue caps with white brim stripe, button, and vents feature the EGSA Certified Electrical Generator Systems Technician logo in front. These one-size-fits all caps are made of durable high-quality cotton and feature a flex-strap to adjust the size.	□ \$20	□ \$25	
□ FSU 122	□ FSU 123		Self-Adhesive Decal (4"x6")—These heavy-duty adhesive-backed vinyl decals are made to hold up to exposure to the elements. To help resist fading and weathering, the images are printed with UV-resistant ink and we have applied an extra coating to further protect the image from fading and abrasion.	□ \$10	□ \$15	
□ FSU 124	□ FSU 125		Self-Adhesive Decal (8"x10")	□ \$20	□ \$25	

Only EGSA Certified Technicians are authorized to use Certified Technician Logo Items. Please enter the technician's certificate number so that we can process the order

Electrical Generator Systems

Technician Certification

Logo Items Order Form

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Herb Whittall EGSA Technical Advisor

UL Postpones 2201 Meeting

The meeting tentatively scheduled for last November 15-16 in Chicago to discuss some proposed changes to UL 2201 Standard for Portable Generator Sets was postponed. It will now be held in spring of 2008. This has brought some adverse comments from the industry panel members helping UL with 2201 who felt the meeting was called at a bad time on too short notice. UL has put UL 2201 up for ballot for ANSI approval, and that ballot closed on December 17, 2007. I felt there was a need for UL2201—especially the warning diagram for the carbon monoxide poisoning danger. We have lost several lives here in Florida over the past few years after hurricanes due to people placing a running portable generator set either in a garage or near an open window.

The EPA is proposing clarifying amendments to the SPCC rule to make regulations less complicated, more efficient and easier for spill control design and implementation. This concern spills from various contaminants. The changes do not seem to involve above ground fuel tanks. The proposed rule is available at www.epa.gov.

According to the October 2007 Building Safety Journal of the ICC, there have been significant changes to the International Building Code concerning seismic qualification of electrical equipment. In Section 1708.5 Seismic qualification of mechanical and electrical equipment a new first sentence has been added. The words "the evidence of compliance" have been changed to "qualification" and the last sentence has been moved to a new section, 1708.5. This requires the registered design professional to provide the applicable seismic qualification requirements for designated seismic systems on the construction drawings. Also,

the University of Buffalo has just announced a new testing facility able to test mechanical systems to the precise floor vibrations that they would experience during the strongest earthquakes.

Eight members of the Western Climate Initiative (WCI) have met and reached an agreement to reduce their greenhouse gas emissions to 15% below 2003 levels by 2020. The group also agreed to design a market-based mechanism, such as cap and trade program, by the end of August to help reach the goal. So it looks as if we still will not have a consistent emissions policy across the U.S. despite what Congress passes for an Energy Act.

The ISO Standard 8178 – Reciprocating Internal Combustion Engines Emissions Measurement–Part 4–Steady-state test cycles for different engine applications has been balloted and should be approved sometime next year. There were no major changes to this standard. Also this same standard Part 2–measurement of gaseous and particulate exhaust emissions under field conditions is in the initial stages of rewrite.

The IEEE White Book–Standard for Healthcare Electrical Systems has been updated from the 1996 edition. To see it, go to http://standards.ieee.org/announcements/whitebookupdate.html.

NFPA has come out with a web site NECplus. org where you can get information on the NEC and NFPA 70E changes.

The IEC is balloting IEC 61907 ED. 1.0 Guidance on Communication Network Dependability Engineering. To me this document is unnecessary because it is too broad and complicated for the purchaser and does not give enough information for the seller/installer. I therefore abstained from the ballot.





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EGSA Launches Two-Tiered On-Site Power Generation Schools

The Electrical Generating Systems Association (EGSA) has recently launched and published details on its new Two-Tiered On-Site Power Generation School program. The new Basic and Advanced Schools are designed to better meet the needs and diverse backgrounds of those who attend the schools. The result is a more pertinent training experience in fewer days—that means fewer hotel dollars spent, and fewer days away from the work-place.

EGSA's On-Site Power Generation Schools provide a complete overview of the components of an On-Site Power generation system. The program provides students with a unique opportunity to familiarize themselves with the technical aspects of the On-Site Power Generation Industry.

Basic School—The Basic School is a general, but still technical, overview of On-Site Power Generation equipment. The Basic School is designed for those who are working in nontechnical positions (such as Sales or Market-

ing, Administrative, or Company Management positions) and for those with less than three years experience working in the industry. As a result, we have "lightened up" several modules to make them more suitable for less experienced or non-technical personnel.

Advanced School—In comparison to the Basic School, the Advanced School will offer more highly technical and in-depth coverage of the equipment. The Advanced School is designed for those who have attended the EGSA Basic On-Site Power Generation School; those who are employed in Engineering, Project Management, or Service positions; and for those with over three years experience in the industry. The Advanced School features "beefed up" modules and covers technical aspects in a more in-depth manner and offers three new modules—"Starting Systems," "Emissions," and "Noise Control."

Complete details—including module descriptions and registration information—is available online at www.EGSA.org.

Basic Schools

Phoenix, AZ Feb. 12-14, 2008

Milwaukee, WI June 24-26, 2008

Orlando, FL Dec. 3-5, 2008*

*To be held concurrently with POWER-GEN International

Advanced Schools

New Brunswick, NJ April 28-May 1, 2008

Austin, TX Oct. 20-23, 2008





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s businesses and industries add more Aand larger emergency standby generators to reduce the impact of power outages, where to locate these generators often becomes a problem. Stand-alone buildings or large mechanical rooms are not an option in many applications, particularly existing facilities or other sites with limited space or other installation obstacles. Outdoor generator enclosures are the answer in these situations, and as emergency standby generators have become more vital to the continuation of business, so too have outdoor generator set enclosures that are properly designed, ventilated, secured and located.

Once you've decided to install your generator set outside in an enclosure, the overall cost and ease of installation will depend on the physical location of all elements of the system – generator set, fuel tanks and accessories. Several types of enclosures are available, including weather-protective, sound-attenuating and walk-in.

<u>Weather-protective</u>—While all metal enclosures provide weather protection, these basic enclosures only secure the

generator set and provide protection from the elements. They do not retain heat or hold temperatures above ambient in cold weather or provide cooling beyond the ventilation and airflow offered by incorporated louvers or perforated panels. Sound attenuation is minimal and, due to their tight fit, access panels or doors are required for maintenance and inspections.

<u>Sound-attenuating</u>—Sound-attenuating enclosures may be specified when noise reduction is needed to meet local ordinances. These enclosures are generally larger and more costly than strictly weather-protective enclosures due to the design features required to reduce generator set noise.

<u>Walk-in</u>—This term encompasses a wide variety of enclosures that are custombuilt to a specific application. Walk-in enclosures often include sound attenuation, as well as space for power switching and monitoring equipment, lighting, fuel tanks and other equipment. They can also accommodate insulating and heating capability. Walk-in enclosures may be treated as a building by local inspection officials.

Virtually any size generator set can be

housed in an outdoor enclosure available from the generator supplier or a wide variety of third-party suppliers. If your facility is considering a new generator that will be housed in an outdoor enclosure, there are several enclosure factors you will want to consider:

Choosing a site

The location for your outdoor enclosure should be level, well drained and secure from flooding, fire, icing and vandalism. For reasons of reliability, the generator set should be located near the main electrical service but not so close that localized problems at the service entrance will interfere with the generator set. For example, a fire at the utility service entrance would be less likely to affect a standby generator set located some distance away. Control panels and connections should have ample clearance for easy access, and the fuel tank should be located so that refueling is convenient. The National Electrical Code (NEC) requires that all outdoor generators include an inside or outside service disconnect, either at the generator or at the point where the generator feeder enters the building. Also, keep the generator location away from building openings, combustible materials or building ventilation inlets.

In multiple-generator applications, be sure there is adequate spacing between generators. Orient the enclosures so that the heat from one generator is not drawn into others.

Sometimes, as a last resort, the only outdoor location for an enclosed generator set may be a rooftop. Provided the roof is properly designed or modified to take the extra weight, this can often be a solution in urban areas. However, there are advantages and disadvantages. While this location may resolve space limitations, supplying fuel, load bank testing and maintenance may be more difficult.

All-weather protection

The amount of weather protection needed is often a matter of geography. In tropical climates, the principal weather challenges are sun, heat, rain, salt spray, wind storms, blowing sand and lightning. Within 60 miles of the ocean, aluminum enclosures resist corrosion from salt air. In more northern climates, ice storms, heavy snow and severe cold pose additional threats. It is recommended that any outdoor generator set enclosure have a corrosion-resistant finish (often aluminum or painted steel); stainless steel hinges, corrosion-resistant handles and other hardware; and rain shields on cooling air intakes and exhaust. Cooling air intakes and exhaust may need motorized louvers that open when the generator set is started and close automatically when the generator set is off to protect against precipitation.

The outer surfaces of the enclosure can be primed and painted sheet metal – either steel or aluminum. The paint needs to be of a quality and thickness to retain gloss and to resist minor impacts and corrosion due to salt spray, humidity and water in accordance with appropriate ASTM (American Society for Testing and Materials) standards.

In areas where ice and snow accumulate, it will be necessary to provide for regular removal of snow and ice around doors, louvers and dampers. In cold climates, the enclosure may have to be fitted with an electric space heater in addition to having a coolant heater on the generator engine. For NFPA (National Fire Protection Association) life-safety applications, NFPA 110 requires a minimum ambient temperature of 40 degrees F inside the



Above and opposite page: Walk-in generator enclosures on the roof of the London Home Office in the U.K. All photos courtesy of Cummins Power Generation.

enclosure. Also, diesel fuel may need to be heated to prevent gelling.

In storm-prone areas, consider an enclosure with added structural strength to withstand high wind loading. Outdoor generator enclosures are available with enhanced strength that resists wind speeds of over 150 miles per hour. In earthquake-prone areas, a seismic-certified enclosure may be required. In flood-prone areas, install the generator and enclosure well above the highest expected water level—on an elevated platform or a rooftop, for example.

Controlling temperature

Generator sets can maintain their rated power output as long as the ambient air temperature flowing into the enclosure does not exceed the cooling system ambient temperature rating and static restriction. If this air temperature is exceeded, the output of the generator will have to be reduced to prevent overheating of the generator set.

Cooling requirements for the enclosed generator set can also be affected by site selection. Whenever possible, locate the enclosure in an area where there is free air flow. Avoid locations such as covered parking ramps or other nearby walls or overhangs that may restrict cooling air flow or require complex routing of the engine exhaust.

Select an enclosure with adequate flowthrough ventilation that keeps temperatures in the optimum operating range. This will allow the generator set to operate at its nameplate rating. The best enclosures incorporate advanced radiator, fan and louver designs that provide optimal airflow through the enclosure to control engine and generator operating temperatures even in the most severe environments. Keep cooling air intakes and exhausts clear of obstacles.

Security

Vandalism is a common problem that can compromise a standby power system's reliability. Lockable access points to connections, switches and valves deter unauthorized persons from interfering with system operation. Access to the fuel tank and system controls should also be restricted.

Sound attenuation

Although generator sets used for standby power do not run often, controlling the noise they produce can become a major concern if the units are located near the property line or in a crowded urban environment. Most locales have ordinances that set limits on permissible sound levels at the property line. While exhaust silencers can greatly suppress exhaust noise, much of the noise from an enclosed generator set comes from the cooling air fan. This fan noise is harder to control but can be greatly reduced by careful design of the air intake and air exhaust plenums.

Sound attenuation is dependent on

Protecting Your Power

many factors, including the sound level produced by the generator engine, the design of the air intake and air exhaust plenums, the type of exhaust silencer and local conditions. Work with your generator set and enclosure supplier to determine the level of noise suppression needed to comply with local regulations. Most generator set enclosure providers offer one or more levels of sound attenuation as options.

Additional issues regarding sound attenuation include:

- Critical sound-attenuation remedies will increase the overall footprint, complexity and cost of an installation.
- Sound-attenuating materials in the walls and ceiling of the enclosure not only trap sound but also heat.
- If sound attenuation is required, specify non-hygroscopic and non-flammable material to prevent moisture build-up inside the enclosure.
- Pay particular attention to noise generated at cooling air intake and exhaust plenums. The design of airflow through the enclosure is critical to minimizing this noise.



Sound-attenuated, walk-in enclosure outside a bank data center in Belgium.

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Fuel

For increased security and to reduce the footprint of your installation, many generator sets can be ordered with an integrated high-capacity fuel tank. Integrated fuel tanks protect fuel lines and filler connections within the enclosure for better security and provide a very compact installation. Look for tanks that include dual-wall construction, fuel gauges and provisions for catching fuel leaks, ruptures and overflows. Be sure to allow sufficient clearance around the enclosure to allow fuel trucks to access the enclosure. Consult with local authorities regarding fuel tank codes.

A skin-tight generator enclosure with access panels and a residential exhaust silencer at a hospital in Audubon, IA.

Maintenance

In walk-in enclosures, make sure there is sufficient room within the enclosure for easy maintenance access to key generator set components. Skin-tight enclosures should have large access doors and panels. Good interior and exterior lighting can make all maintenance and troubleshooting tasks easier.

Conclusions and recommendations

Specifying the best enclosure for a standby power system is an important task, because it can have an impact on both the short-term operation and longterm reliability of the system. Start with a thorough assessment of your power needs, installation location and environment, and work with your generator set and enclosure supplier to design an installation that fits all your specifications.

About the Author

Jim Iverson is a senior applications engineer for Cummins Power Generation, and holds a Masters in Engineering Science, and a Bachelor's in Electrical Engineering. With Cummins since 1976, he has managed Transfer Switch Design, Systems Engineering, Switchgear and Controls, and Technical Marketing & Sales. Current responsibilities include providing technical direction to the Commercial Marketing and Sales Departments, participating in domestic industry codes and standards development, providing sales and service training, developing technical input for published literature and software, publishing technical papers on relevant industry topics, and providing application engineering support to customers.

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Dealing Effectively With The Competition

By Dave Kahle

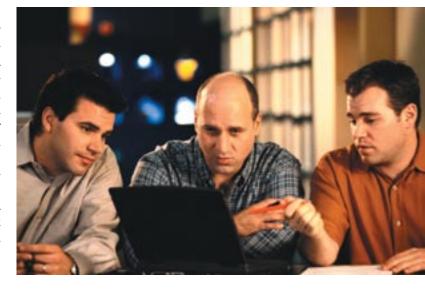
This would be a great business if it weren't for the competition! Unfortunately, the existence of the competition impacts every industry, every business and every sales position. What the competition does or does not do can make a dramatic impact upon a company and a salesperson. That impact can range from squeezing you to the point where you go out of business on one extreme, to creating tremendous opportunities for growth and profits on the other. The competition and their potential impact on your business is a fact of life. No matter how hard you wish, you are not going to be able to make the competition go away.

While we can't change the competition, we certainly are responsible for our attitudes and behaviors toward the competition. What we say and how we act about the competition can have a daily bearing on our bottom lines. An appropriate attitude and set of practices for dealing with the competition should be an essential part of every salesperson's repertoire.

Respect the Competition

Speaking badly about the competition, looking down on them, finding fault with them and generally disparaging them are all common behaviors that I see frequently among the companies with whom I work.

It is easy enough to understand why that is. In sales meetings we are constantly told how our products stack up against the



competition, what makes our service superior, why our people are more experienced and more knowledgeable than theirs, etc.

In my position as a consultant and sales educator, I am uniquely positioned to test the truth of these positions. I've occasionally worked with a company, for example, and then a few years later found myself involved with one of their competitors. Or, I may have two or more competitors in one of my seminars. This unique position has allowed me the opportunity to make observations about these kinds of claims.

One of the observations I have made is this: There is usually some degree of truth in the details of these elements. Your hot new product may have several features that your competitor's does not have, for example. However, in the big picture, your competitor offers a sound business option to your customers. While your new product contains some features that you competitor's does not, his product probably contains some features that yours does not. And while you claim your service to be superior, so does he. And your people are probably not more experienced and knowledgeable than his. From the 10,000 foot high perspective, if your competitors were as flawed as you think they are, they wouldn't be in business, and your customers wouldn't be buying from them.

In all likelihood, your competition is made up of educated, committed people who are trying just as hard as you are to be a viable option to your customers, to conduct their businesses with integrity just like you, and who strive to do a good job and to provide for their families through the fruits of their labors, just like you.

So, bury those attitudes of superiority, and cast off that disdain for the competition. If your customers didn't think they presented a viable option, they wouldn't be buying from them.

Don't Believe Everything You Hear

We occasionally hear comments from our customers with complaints about the competition or stories of how they messed up on some project. This, of course, contributes to our natural tendency toward smugness by confirming our views.

Let's take all of that with a healthy degree of skepticism. Under-

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stand that the people who share that information with us are typically those customers with whom we have the best relationship – those that we consider our friends. What we see as confidential information about the competition's weaknesses may just be the natural human inclination to tell us what they believe we want to hear. Our friends want to find common ground with us. And our animosity toward the competition provides potentially productive soil to plow.

It's been my observation that many of those customers who are reporting on the flaws in the competition to you, are reporting on your flaws to them.

Don't view everything you hear as 100% accurate.

Don't Speak Badly About the Competition—Ever

Disparaging the competition, speaking badly about the company or the individual salespeople—using little innuendos and side comments – all of this says more about

us to our customers than it does about the competitors to whom we are referring. It reveals us as small minded, petty, smug and far more interested in ourselves than we are in our customers.

This is something I learned the hard way, in one of the most embarrassing incidents in my tenure as a salesperson.

The competition and their potential impact on your business is a fact of life. No matter how hard you wish, you are not going to be able to make the competition go away.

I was selling a piece of capital equipment, representing a product line that was 35% more expensive than the competition. However, the additional cost was justified in a far superior product. The competition

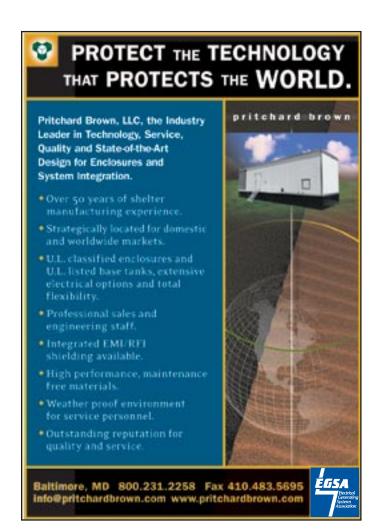
had been experiencing a problem with one component of their system – the batteries easily worked loose and disconnected. They solved that problem by using a rubber band to provide additional tension on the battery and keep it from jiggling loose.

I pointed that out to my potential customer—asking them how comfortable they felt with a product that was held together with a rubber band. My customer's response?

"Do you know what I don't like about you?" she asked. I was floored and speechless. "You are so negative about your competitors." I turned beet red, stammered an apology and retreated quickly. That incident has stuck with me for decades.

At this point there is a question which naturally occurs. If I don't want to speak badly about the competition, how do I present the advantages of my offer relative to the other guy's?

1. Consider the competition's offer as irrelevant. I believe this approach to be the most effective in the long term,





Distributor's Corner

because it focuses on the customer, not the competitor.

If you have done an accurate, detailed job of understanding the full nature of your customer's situation, and have presented a solution that precisely meets the customer's requirements, what difference does it make who the competition is, or what the competition does?

The issue is not the competition; it is your ability to meet the customer's needs. Your mindset, from the beginning, is not a bit focused on the competition, but rather is 100% targeted to completely understanding the customer's requirements. The conversation is not about how you compare to the competition, but rather how you meet the customer's needs.

Obviously, this approach is not for every selling situation. It requires a commitment on the part of the salesperson to spend time with the customer in order to fully understand his needs. It assumes that you have the ability to shape an offer that meets the customer's needs. And, it requires a

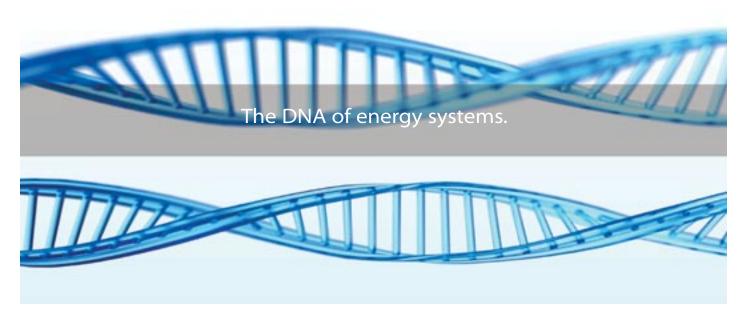
more professional self-image on the part of the salesperson, who sees himself/herself as a "consultant" to the customer. If your routine is limited to asking for the technical specifications and then quoting prices, this approach is going to be outside of your reach. In the long run, however, it provides the ultimate response to the competitor's presence in your accounts.

The issue is not the competition; it is your ability to meet the customer's needs.

2. Speak in generalized, not specific, terms. It is more effective and more professional to speak in general terms about the class of competitor than it is to speak specifically about a particular company or person. For example, if you want to make the point that you favorably compare to X company (that national competitor), say something like this: "Generally, large

national companies are more concerned about their own financial performance than they are the needs of the local customers. Since we're local and family owned, we highly value every customer, and that translates itself into more personal and responsive service." Notice, you didn't talk about the competitor, you talked about "national companies" — a general class of competition. This "generalizing" the references to the competition provides you a means of pointing out your distinctiveness without being negative about your specific competitors.

3. Use questions, not statements. It is far more effective to put questions in the customer's mind that he/she should ask about the competition, than it is for you to make statements about the competition. Remember, your comments are always suspect, because the customer knows that you have a vested interest in persuading him one way or the other. His observations, however, have far more validity to the customer than anything you are going to say.



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Understanding that, this practice seeks to help the customer make his own observations by providing the questions that the customer should ask.

For example, don't say, "Y Company is a small local company that doesn't have the systems or technology to support you in the long run." Instead, say, "One of the questions you should ask of every vendor is this, 'What technology and systems do you have in place to assure that you will be able to support us for the long run?"

4. Use tables and charts. This is a commonly used technique to point out the differences between your offer and your competitors' in a detailed and professional way. Imagine a chart, with the salient features of your offer down the first row, and across the top your company's name, followed by "Option A," "Option B," etc. with the options being your competitors. Then use a check mark to indicate the inclusion of that feature in each company's offering.

This can be a highly effective way to point out the differences between your offer and the competitors. In addition to the detail that it presents, the document itself is often prepared by your company, not by you personally. That means that you are one step removed from being the source of this information. The problem with this approach is of course, that the source of the information is your company, and you are always suspect.

Regardless of which one or combination of these approaches work for you, the discipline to deal with the competition in a professional manner is one of the hallmarks of the best salespeople. Every salesperson should think through and decide on an approach that fits you.

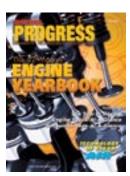
About the Author

Dave Kahle is a consultant and trainer who helps his clients increase their sales and improve their sales productivity. Dave has trained thousands of salespeople to be more successful in the Information Age economy. He is the author of over 500 articles, a monthly e-zine, and six books. You can join Dave's "Thinking About Sales Ezine" online at www.davekahle.com. For more information, or to contact the author, contact The DaCo Corporation at 800-331-1287.

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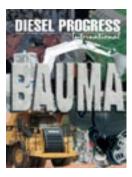
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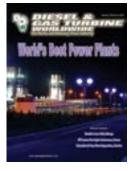


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Advanced School

In comparison to the Basic School, the Advanced School will offer more highly technical and in-depth coverage of the equipment. The Advanced School is designed for those who have attended the EGSA Basic On-Site Power Generation School; those who are employed in Engineering, Project Management, or Service positions; and for those with over three years working in the industry.

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and repairs are being performed by skilled technicians to guard against unnecessary returns or warranty repairs.



Certification is the Solution

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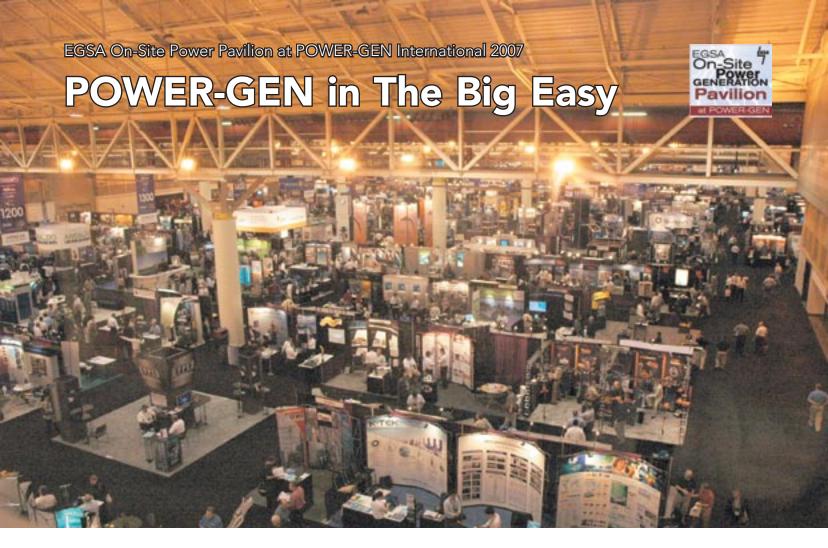
About the Program

Through rigorous testing, EGSA's Certification Program identifies generator technicians who have attained sufficient levels of skill, knowledge, and expertise to demonstrate proficiency in various aspects of generator set and On-Site Power generation systems maintenance and repair. Only technicians who pass the test can use the title "EGSA Certified Electrical Generator Systems Technician."

To learn more about EGSA's Generator Technician Certification Program, visit us online at www.EGSA.org. Ask your generator technician: is he EGSA Certified?



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Thousands of Power Generation Industry professionals converged on New Orleans recently to walk the aisles of the 2007 POWER-GEN International show, held December 11-13 at the Ernest N. Morial Convention Center in downtown New Orleans, LA. The event drew more than 17,000 power professionals from 76 countries and over 1,100 exhibiting companies showing the latest innovative products for the power generation industry, including boilers, turbines, engines, computer hardware and software, controls and instrumentation systems, generators, electrical systems, pumps, valves and much more.

With about one million square feet of exhibit space, POWER-GEN International maintains its position as the biggest—and most important—of power industry events. By extension, that makes the EGSA On-Site Power Pavilion—located within the heart of the POWER-GEN show—the most important On-Site Power exhibition of the year as well. The On-Site Power Pavilion—"a show within a show"—offers attendees an exclusive focus on On-Site Power Generation and related products and services. In fact, it is the largest single gathering of such companies annually with over 100 exhibiting companies.

According to Jalane Kellough, Executive Director of EGSA, "The POWER-GEN International Show, and the On-Site Power Pavilion within it, offer EGSA members and industry professionals a unique opportunity to become familiar with the latest advances in On-Site Power technology, learn about new innovative products, and make important business contacts. I urge everyone who is involved with the On-Site Power Generation Industry to come and visit the EGSA On-Site Power Pavilion. The 2007 pavilion was one of our best yet!"

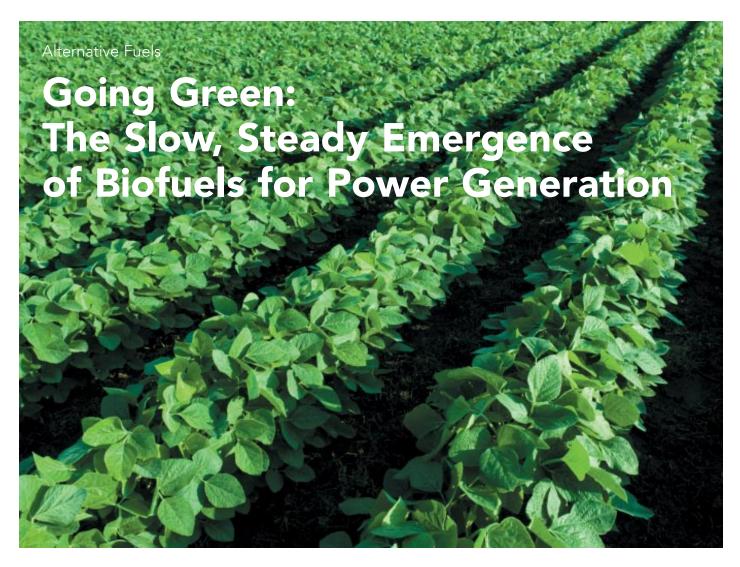


Top: Over 1,100 companies exhibited at the 2007 show. Above: Students from the On-Site Power Generation School network during the EGSA Reception.

Thanks to brisk rebooking during the 2007 show, EGSA has announced that space within the EGSA On-Site Power Pavilion at the POWER-GEN International 2008 show is completely sold out. Firms interested in exhibiting may still contact the association to be wait-listed in the event of any space cancellations. POWER-GEN International 2008 will be held December 2-4 at the Orange County Convention Center in Orlando, FL

EGSA Events at POWER-GEN

EGSA presented its final On-Site Power School for 2007, held concurrently with the show at the Marriott New Orleans. EGSA also held its annual On-Site Power Reception at the Convention Center on December 11. The informal get-acquainted cocktail party for members and non-members of the Association provides a unique opportunity for exhibitors and show attendees to meet and talk away from the show floor. For more information, visit www.EGSA.org



The slow but incessant depletion of fossil fuels is beginning to beginning to result in new, alternative fuels for use in some of the latest, most efficient power generation equipment available today.

Alternative Energy News (www.alternative-energy-news.com) defines biofuels as being "produced from living organisms or from metabolic by-products (organic or food waste products)" In order to be considered a biofuel, says AE News, the fuel must contain more than 80 percent renewable materials.

According to the International Energy Agency (IEA), "Abundant resources and favorable policies are enabling bio-power to expand in Northern Europe (mostly co-generation from wood residues), in the United States and in countries producing sugar cane bagasse (e.g. Brazil). Proliferation of small projects, including digesters for off-grid applications, is recorded in both OECD and emerging economies."

Currently, the Agency adds, "Global biomass electricity capacity is in the range of 47 GW, with 2–3 GW added in 2005. Associated investment accounted for 7%

of total investment in renewable energy capacity in 2005 (\$38 billion excluding large hydro)."

Power generation equipment manufacturers such as Wärtsilä, MAN Diesel, Cummins, John Deere, Detroit Diesel, Caterpillar Power Generation Systems (CPGS)

Many countries have set mandatory or voluntary standards specifying that power generators generate a certain amount of electricity from renewable sources.

and others have responded to the rising demand for biofuel use by offering a variety of alternative fuel solutions. According to Caterpillar, recent advances in biofuel engine technology and the emergence of new international and domestic standards, have created expanded opportunities within the

ever-growing renewable energy market. These initiatives include those guided by the IEA, as well as the Renewable Portfolio Standard (RPS) in the U.S.

Many countries have set mandatory or voluntary standards specifying that power generators generate a certain amount of electricity from renewable sources. In other words, a predetermined percentage of a power plant's capacity or generation must come from renewable energy sources by a given date.

Produced from vegetable oils, biofuels have existed since the 1800s. In 1912, Rudolf Diesel introduced the engine that bears his name and noted that it could operate with a variety of fuels—including vegetable oil. Today, an even wider variety of fuels is in use, including traditional fossil fuels and biofuels, such as straight vegetable oil (SVO) of various origin (soybean, palm oil, rapeseed, sunflower or tallow/animal fats), and even some kinds of liquid waste.

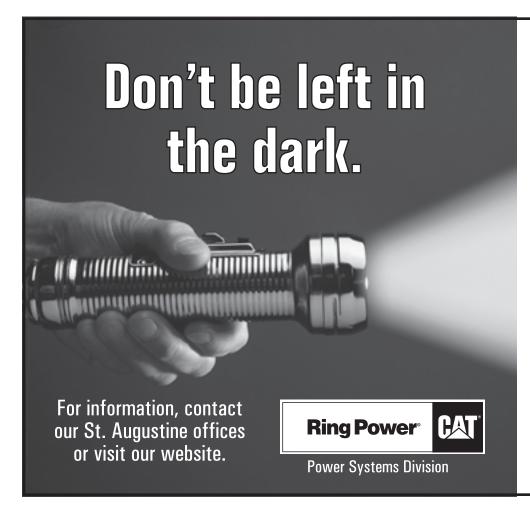
The use of biofuels is even becoming a sophisticated "green" marketing ploy. Last year, *Time* magazine published "51 Ways

Biomass for Power Generation and CHP

Biomass combustion is a carbon-free process because the resulting CO2 was previously captured by the plants being combusted. At present, biomass co-firing in modern coal power plants with efficiencies up to 45% is the most cost-effective biomass use for power generation. Due to feedstock availability issues, dedicated biomass plants for combined heat & power (CHP), are typically of smaller size and lower electrical efficiency compared to coal plants (30%-34% using dry biomass, and around 22% for municipal solid waste). In cogeneration mode the total efficiency may reach 85%-90%. Biomass integrated gasification in gas-turbine plants (BIG/GT) is not yet commercial, but integrated gasification combined cycles (IGCC) using black-liquor (a by-product from the pulp & paper industry) are already in use. Anaerobic digestion to produce biogas is expanding in small, off-grid applications. Bio-refineries may open the door to combined, cost-effective production of biochemicals, electricity and biofuels.

Potential and Barriers

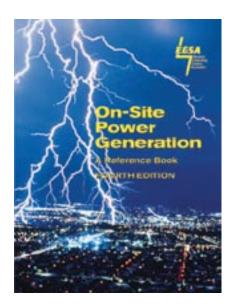
In the short term, co-firing remains the most cost-effective use of biomass for power generation, along with small-scale, off-grid use. In the mid-long term, BIG/GT plants and biorefineries could expand significantly. IEA projections suggest that the biomass share in electricity production may increase from the current 1.3% to some 3%-5% by 2050 (IEA ETP, 2006), depending on assumptions. This is a small contribution compared to the estimated total biomass potential (10%-20% of primary energy supply by 2050), but biomass are also used for heat generation and to produce fuels for transport. Main barriers remain costs; conversion efficiency; transportation cost; feedstock availability (competition with industry and biofuels for feedstock, and with food and fiber production for arable land); lack of supply logistics; risks associated with intensive farming (fertilizers, chemicals, biodiversity).



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to Save the Environment" and noted the existence of rental car agencies that are currently offering biofuel-equipped automobiles. The founders of one such company, Maui-based Bio-Beetle Eco Rental Cars, launched their business as a way to demonstrate environmental consciousness and appeal to likeminded tourists.

The use of biofuel can raise a bewildering array of engineering, availability and regulatory issues. In response, CPGS is offering guidance and resources to its customers to help them attain the maximum benefit from the use of biofuels.

Gert Hoffmeister, CPGS' renewable fuels manager, explains, "In terms of energy balance, not only does SVO represent a truly renewable fuel source, it also represents a much more efficient use of raw material."

"We have performed extensive research on the burning of renewable fuels in our medium-speed engines, which can use a wide variety of biofats or biodiesel as fuel," says Hoffmeister. Even without assigning any energy value to the co-products in the process (soy meal or glycerine), the net energy gain for SVO is approximately 60,000 Btu/gallon (a 104% increase over traditional fuels). Soydiesel's net energy gain is approximately 37,000 Btu/gallon (a 45% increase).

According to the IEA, the costs involved with bio-power can vary widely

In 1912, Rudolf Diesel introduced the engine that bears his name and noted that it could operate with a variety of fuels—including vegetable oil.

due to the variety of available feedstocks and the processes required to convert them to fuels. For example, a co-firing coal power plant requires limited incremental investment (\$50-\$250/kW) and offers a competitive electricity cost (US\$ 20/MWh) if feedstock is available locally at low cost (no transportation required).

On the other hand, with a typical biomass cost of \$3-\$3.5/GJ, the resulting cost of electricity may exceed \$30-\$50/MWh. Dedicated biomass power plants are smaller in size, says the Agency, and as a result are more expensive (\$1500-\$3000/kW) than coal plants. Cogeneration electricity costs range from \$40 to \$90/MWh.

Perhaps the strongest argument for the use of biofuels is their sustainability. According to John B. Campbell, senior vice president, Ag Processing Inc, SVO fuel reserves are plentiful. In a recent speech before the National Institute of Oilseed Products, Campbell said, "You could build and operate more than 150 renewable energy power plants in the U.S. and it would have no impact on the available SVO fuel supply."

Sources: Caterpillar Power Generation Systems, www.cat.com; International Energy Agency (IEA), www.iea.org; Alternative Energy News, www.alternative-energy-news. com; National Biodiesel Board, www.biodiesel.org.





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For complete information on EGSA's On-Site Power Schools—including a schedule and registration materials—and full details on our Continuing Education program, visit us online at www.EGSA. org.

Electrical Generating Systems Association

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Boca Raton, FL 33432
Email us at e-mail@egsa.org
Visit us online at www.EGSA.org



ManTech Program Helps Saft Double Power Performance

Saft's Space & Defense Division, located in Cockeysville, MD, has reached milestone improvements for the facility's production capabilities, including a 100% increase in capacity and a 50% savings in production cost (from baseline product cost since 2004). The improvements are part of the U.S. Army Tank-Automotive Research Development Engineering Command's (TAR-DEC) Manufacturing Technology (Man-Tech) contract, awarded to Saft in 2004. The ManTech program provides funding for the development of low-risk, affordable technologies for the military. The goal is to improve production cost through product flow improvements, simplifying the design of manufactured products, and reducing labor hours.

Saft has reduced cell labor hours by 63%, reduced material and component design cost by 38% and has doubled the power density of its "P" cells. The ManTech funding is aimed primarily at Saft's VL34P

battery system for hybrid electric military vehicles.

The ManTech program presents the opportunity for Saft to contribute to more projects for hybrid electric vehicle power with both TARDEC/TACOM. The cells support silent watch capabilities in combat vehicles and power the electric drive system. The VL34P module consists of 12 cells and is 43.2 V and provides continuous power of 20 kW.

Saft is a world specialist in the design and manufacture of high technology batteries for industry. For more information, visit Saftbatteries.com

Chevron Opens Michigan Demonstration Fueling Station

Air Products has announced that its hydrogen technology has recently been put into operation at Selfridge Air National Guard Base, MI, in a hydrogen fueling station designed and constructed by Chevron Hydrogen Company, a division of Chevron U.S.A. Inc. The station serves a fleet of fuel

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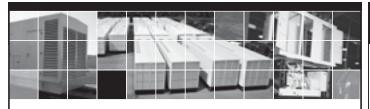
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Industry News

integrated by Chevron into its advanced fueling station design for this project.

In May 2007, Air Products provided similar hydrogen technology for a Chevron demonstration fueling station in Florida. The Chevron project, located near the Orlando Airport, fuels a fleet of shuttle buses powered by modified internal combustion engines. For more information, visit www.airproducts.com.

Wave Energy Converters Offered to Researchers

Swell Fuel, an ocean wave energy company, has announced it will begin marketing ocean wave energy converters to researchers, universities and technology companies early next year.

Many countries are interested in installing ocean energy converters but often won't commit to products that are unproven. As a result, Swell Fuel will be selling units for testing for as low as \$1000.

With patent-pending prototypes and four separate sizes to choose from, the company will offer units that produce 20, 100, 1000 and 5000 watts of electricity. Feedback will be requested from researchers to enhance and improve future product designs.

Using a lever operated pivoting float anchored to the lake or ocean floor, the converters are activated when wave action lifts a lever in an up-and-down motion, which in turn produces electricity.

The company has already licensed its product in seven countries as a means to provide energy and electricity for coastal area residents. Earlier this year, the company successfully tested its prototypes in the waters of El Salvador and at a research facility at The University of Rhode Island. For information, visit www. swellfuel.com

Hennig, Inc., Joins EGSA

Hennig, Inc., Machesney Park, IL, has announced it has recently joined the Electrical Generating Systems Association (EGSA). EGSA is the world's largest organization exclusively dedicated to On-Site Power Generation, serving more than 500 companies, and offering Technician Certification.

Hennig, Inc.'s membership follows the initiation of their new division in early 2007, Hennig Enclosure Systems, which engineers and manufactures a variety of weather-proof enclosures and UL-142 approved fuel tanks for power generators. EGSA serves as a forum where members can trade industry-related information and gain knowledge about performance standards and issues. As a result, Hennig's membership in this organization ultimately will benefit customers.

Hennig, Inc. designs and produces custom machine protection and chip/coolant management products for state-of-the-art machine tools. For information, visit www.hennigworldwide.com.

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EGSA's mission is to bring together representatives of the various segments of the On-Site Power Industry, to learn, share ideas and experiences, advance the science of On-Site Power generation, improve performance and profitability of members, and the quality of service to power users.

1.	Contact Information	ease	e typ	e or print all information in upper and lower case (NOT ALL CAPS!)
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2. 1	Member Classification Read the Membership classification	s h	elov	y and check the hox that describes your firm's classification
	L MEMBERSHIP	3 0	CIOV	value check the box that describes your min's classification.
□ MF	Manufacturer Membership	II.	AS	SOCIATE REGULAR MEMBERSHIP
	Any individual, sole proprietor, partnership or corporation seeking membership		AA	
	must apply for a Full Membership as a manufacturer if they meet one or more of the following criteria: 1. They manufacture prime movers for power generation.			Any trade publication dealing with the electrical generating systems industry or its suppliers may apply for Associate Membership—Trade Publications.
	2. They manufacture generators or other power conversion devices producing	Ш	AB	Trade Association Membership Any trade association made up of individual or company members sharing a
	electricity. 3. They manufacture switchgear or electrical control devices. 4. They manufacture or assemble generator sets, UPS systems, solar power,			common interest in the electrical generating systems industry may apply for Associate Membership—Allied Associations.
	hydropower, geothermal, or any other power production or conversion		AC	Engineer Membership Any consulting or specifying engineer may apply for Associate Membership—Engi-
	system including related components or accessories for national or regional distribution.			neer. Membership may either be held in the employer's name or individual's name
	They are a wholly owned subsidiary of a firm which qualifies under rule one through four.			under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.
	tillough loui.		AD	End-User Membership
□ DD	Distributor/Dealer Membership Any individual, sole proprietor, partnership or corporation actively engaged as			Any individual employee of a company who owns or operates electrical generat-
	a distributor or dealer for products listed under Manufacturer Membership may			ing equipment and/or related switchgear or components, whose responsibility to his employer includes planning, design, installation, supervision, or service of
	apply for Full Membership as a Distributor/Dealer. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.			such equipment may apply for Associate Membership—User. Membership may either be held in the employer's name or individual's name under this classifica-
□ CI	Contractor / Integrator Membership			tion. Individuals whose employer qualify as a Full Member, as described in the
u Ci	Contractor/Integrator Membership Any individual, sole proprietor, partnership or corporation actively engaged as a	_		Full Membership section, do not qualify for this category.
	Contractor or Equipment Integrator of products listed under Manufacturer Membership, not brand by brand, geographic territory or contractually obligated as a	ш	AE	Service Membership Any individual, organization or academic institution that offers services such as
	Distributor/Dealer of a specific product. These firms typically purchase products			research, testing or repair to the electrical generating systems industry may apply for Associate Membership—Services. Membership may either be held in the
	from a Distributor/Dealer, Manufacturer or Retailer, adding value through instal- lation, product knowledge, relationships, unique services, etc., and then re-sell			individual's name or the organization's name under this classification. Individual
	the resulting product to an end-user.			companies whose employer or parent organization qualifies as a Full Member, as described in the Full Membership section, do not qualify for this category.
□ MR	Manufacturer's Representative Membership		AG	
	Any individual, sole proprietor, partnership or corporation actively engaged in the representation of products listed under Manufacturer Membership may apply for			Any postsecondary vocational-technical school or college offering on-site power generation-related instruction may apply for Associate Membership-Education
	Full Membership as a Manufacturer's Representative. If an organization qualifies			Institution.
	under Manufacturer Membership, it is not qualified under this section.		AR	Retiree Membership
□ EM				Any individual who retires from a member company may apply for Associate Membership—Retired. This classification does not apply to any individual who
	Any individual, sole proprietor, partnership or corporation engaged in energy management, including Energy Service Companies (ESCOs), Independent Power			is employed more than 20 hours per week.
	Producers (IPPs), Integrators, Aggregators, and other similar enterprises may apply for Full Membership as an Energy Management Company.		AF	Student Membership Any individual currently enrolled at an academic institution may apply for Associate Membership—Student.
	Associate Full Membership (mark appropriate category at right)]			
	Any individual, sole proprietor, academic institution, student, partnership or corporation meeting the requirements of Associate Regular Membership may apply			
	for Full Membership at their option to enjoy the privileges of Full Membership,			
	including the rights to vote and to serve on EGSA's Board of Directors. Initiation fees and annual dues will be assessed at the existing non-manufacturers' Full			
	Member rates.			

<u>Application for Membership – page 2</u>

Decre Calcaded (Has for Costion 2)			
Dues Schedule (Use for Section 3)	Annual Dues	Initiation Fee	TOTAL
Manufacturer	<u>'</u>		
Energy Management Companies			
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Contractor/Integrator	\$285	\$100	\$385
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Full Associate Member			
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NOTE: A FULL 12-MONTH DUES PAYMENT Notes that the second of the second o	extend beyond the first M		
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Do you buy AND sell equipment? □ Yes □ No	Do you manufactu	ure packaged equipment? 🛚 Yes 🗖	No
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05 Engines, Diesel or Gas 14 Instruments and o	controls, including meters, gauges, 2		
06 Engines, Gas Turbine relays, contactor: 07 Engine Starters/Starting Aids 15 Load Banks 08 Filters, Lube Oil, Fuel or Air 16 Motor Generator S	Sets 2	23Transformers 24 Uninterruptible Power Supplies 25 Vibration Isolators 26 Voltage Regulators	Products rented:
28Fuel Cells 17Radiator/Heat Excl 03Fuel Tanks and Fuel Storage Systems 18Relays, Protective		26 voltage Regulators 27 Wiring Devices or Receptacles	
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6. Sponsor(s) : A"Sponsor" is an EGSA Mem Board to act favorably on this application; however pany name for our records.	nber who interested you in fi r, if a Member recommended	lling out this application. It is not manda d that you consider membership, we rec	atory that you have a sponsor for the quest that individual's name and com-
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7. Official Representative's Author			
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Stay on Top of Your Game with **EGSA's Electrical Generator Systems Technician Certification Program**

Think things move pretty fast in today's business world? Think how fast they'll be moving one, five or even 10 years down the road. That's why you need every advantage to stay on top.

It's no secret that technology is becoming more complex—not less—and that makes today's On-Site Power Generation System a lot more expensive. End-users—your customers—don't want just anybody with a basic knowledge of mechanics to install and maintain their equipment. They want to be confident that all work has been performed by qualified personnel. Suppliers want assurance that skilled technicians are performing maintenance and repairs to guard against unnecessary returns or warranty repairs.



In the past, your word was the only assurance that your technicians are skilled and knowledgeable. But now, through EGSA's Electrical Generator Systems Technician Certification Program, there is a way that you can back up those words with objective evidence of your technicians' proficiency.



Certification helps ensure that your technicians have the critical knowledge and skills to succeed in their jobs.



EGSA offers you a big advantage: For the first time in our industry, we have an objective and accurate way to determine generator technician proficiency. That means that the same standards will be used to measure the skills and knowledge of technicians from Maine to Manitoba and Mexico. Yes, Manitoba and Mexico! EGSA has determined that there is no reason why the test could not be fairly applied to any NAFTA technician.

What are the Benefits?

For the Employer, certification helps ensure that your technicians have the critical knowledge and skills to succeed in their jobs. And everyone will be comfortable knowing that your certified techicians' expertise has been confirmed by the industry organization through a program that was developed by a university. Encouraging and helping your technicians become certified signifies your commitment to the highest of standards. Plus, it lends an added level of credibility to your firm and can sharpen your competitive edge. Employing certified techs will promote customer satisfaction and you won't have to be shy about offering assurance that your techs are qualified. Certification can also help you select potential new hires, analyze job performance, evaluate employees and motivate technicians to enhance their skills and knowledge.

Think about the message that certification sends to those with whom you do business. Why would anyone want a technician who isn't certified performing critical maintenance or repair tasks? Employing certified technicians gives you an added tool with which to market your business.

As our members have said, "We've seen too many backyard mechanics damage expensive equipment. This program will provide credibility for my company and will help build pride and a commitment from technicians to be the best."

For the Technician

Certificate holders benefit too. Certification shows employers, clients, and associates that you are committed as a professional. It provides recognition of your knowledge and skill, shows your commitment to your profession and can help with job advancement. Certification is a mark of excellence that you carry with you everywhere you go.

Acquiring certification indicates that you have the knowledge and proficiency required to perform as an Electrical Generating Systems Technician professional. Becoming certified can increase your salary, enhance your skills, and make your job more satisfying.



The Certification Test

EGSA collaborated with Ferris State University to develop the certification test and program. Through a scientific process, our panel of technical experts identified 12 duty areas (such as "Basic Electricity") and 61 tasks (such as "demonstrate knowledge of AC electrical theory") within the duty areas. The duty areas and tasks were ranked and rated in terms of their relative importance, the frequency with which a task is performed, and skill level (i.e. Senior/Expert; Intermediate; and Entry Level.) All this data was combined to develop the certification test that was then statistically validated through a pilot test taken by generator technicians from across the United States.

Who can take the Test?

There are no pre-qualifications for taking the EGSA Certification test. We recommend three or four years of field experience before taking the test. Technicians who have had formal education in On-Site Power Generation (a degree or certificate from a technical school or community college) may need less field experience. Those who pass the test will have a comprehensive knowledge of basic electricity, the functions of a gen-set's mechanical and electrical components, the interactions and relationships among components and an understanding of various elements of the installation, service, maintenance, and repair of gensets and On-Site Power Generation Systems.

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- Generators/Alternators

Use the Study Guide to Prepare!

Use of the program's Study Guide is an excellent way to help techs prepare for the test and should clearly indicate if they are ready to take (and pass) the certification exam. In addition to useful formula pages, the guide contains almost 200 multiple choice practice questions that cover all parts of the certification test. In addition to identifying the correct answer, the guide also indicates in most cases why a particular choice is correct

and why the others are incorrect. The Guide also identifies resource material where techs can get additional or more in-depth information about a given topic.

Need more information? Visit www. egsa.org to find extensive and detailed information about the certification program. Or contact EGSA Director of Education George Rowley via e-mail at g.rowley@egsa.org.



DISCLAIMER OF LIABILITY

Certified status is an indication that an individual has completed a combination of defined education, experience or examination requirements. However, Certification is not a guarantee or assurance of the competence or ability of any particular individual. Further, given the rapid changes in the field, the Electrical Generating Systems Association cannot warrant that the Examination and other Certification materials will at all times reflect the most current state of the art.

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TAW, Inc. is searching for experienced Generator Field Technicians in Pompano Beach, FL. Duties include: inspections, repairs, services and start-up of generators and ATS. Troubleshoot Generators and automatic transfer switches. E-mail resume to ellen.donegan@tawinc.com. Fax (813) 612-2609. AA/EOE. DFWP. Check out our web site www. tawinc.com.

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Are you looking for a strong company to build your relationship with. We are a 62 year old family business looking for aggressive self motivated generator salesperson for the Southeastern part of Virginia. Must have experience before being considered. Salary, commission, expense report, car curnished and health benefits and 401k. Will pay to relocate. Send resume to: Charles T. Gould, P.O. Box 7788, Portsmouth, VA 23707-0788; Fax: 757-673-7190; email: cgould@wbdiesel.com

Generator Set Sales/Service

Experienced sales/service engineer needed by southern California company to sell engine generator sets.

Please respond to J.Kellough@EGSA.org
(Reference PLND06JB-1).

Generator Field Technician

W. W. Williams is seeking an experienced Generator Field Technician in the Las Vegas, Nevada area. Responsibilities to include: Start-up, inspection, service, troubleshoot and repair of Generators and ATS. Please email resume to sgale@wwwilliams.com EOE

EGSA Job Bank Guidelines—EGSA will advertise (free of charge) EGSA Members' job openings each issue in the Job Bank. Blind box ads using the EGSA Job Bank address are available upon request. Companies who are not members of EGSA may utilize the Job Bank for a \$300 fee. Please note that company logos may be included for an additional fee. Please send your classified ad (limited to about 50 words) to: EGSA Job Bank, 1650 S. Dixie Hway, Suite 500, Boca Raton, FL 33432. Or, send it via e-mail it to: J.Kellough@EGSA.org

EMERGENCY POWER SYSTEM SPECIALISTS

Generator Technician—Experienced

Emergency Systems Service Company in Quakertown, PA, a leading provider of emergency generator sets, has an immediate opening for a technician with a minimum of three years diesel engine/generator set background/experience. Responsibilities will involve troubleshooting, repair and the planned maintenance services of generator sets and peripheral equipment. A neat appearance, clean driving record and good people skills are required. We offer a highly attractive compensation with an outstanding benefits package. A company vehicle and additional training provided. If you are interested in becoming part of our team, please call (215) 536-4973, ext. 25.

Generator Technician-Apprentice

Emergency Systems Service Company in Quakertown, PA, aleading provider of emergency generator sets, has an immediate opening for a person with a strong mechanical/electrical background interested in a career in the power generation service field. Responsibilities will involve minor troubleshooting, repair and the planned maintenance services of generator sets and peripheral equipment. A neat appearance, clean driving record and good people skills are required. An outstanding benefits package, company vehicle and additional training provided. If you are interested in becoming part of our team, please call (215) 536-4973, ext. 25

Area Service Manager

Due to company expansion, TAW® is seeking an experienced Area Service Manager for our Power Systems group in Florida. We are the primary distributor for Kohler Power generators in FL and S. GA. Will provide leadership, technical assistance, and schedule and train technicians. Must possess working knowledge and avility to inspect, service and repair generator equipment. Salary and commission. E-mail resumes to *ellen.donegan@tawinc.com*. Fax (813) 612-2609. AA/EOE. DFWP. Check out our web site *www.tawinc.com*.

Generator Field Technicians

PM Technologies, LLC in Detroit, MI, a leading provider of emergency generator set sales, service and rental has immediate openings for service technicians to assist with our expansion throughout Michigan and Northern Ohio. Duties will include maintenance, troubleshooting of both electrical and engine related issues, start-up of generators and transfer switch/switch gear equipment. 3 or more years experience a plus. Competitive wages, benefits, 401k, vacation, company service vehicle. Please email resume to *dpopp@pmtech.org* or fax to 248.374.6402

Outside Service / Sales Representative

PM Technologies, LLC in Detroit, MI, a leading provider of emergency generator set sales, service and rental has an immediate opening for an outside service sales representative to assist with our expansion throughout Michigan and Northern Ohio. Duties will include customer site visits, preparation of quotes and proposals, PO procurement, high end residential generator sales. Prior technical knowledge and experience in selling generator service/products and/or industrial service sales desired. Competitive wages, benefits, 401k, vacation, vehicle allowance. Please email resume to dpopp@pmtech.org or fax to 248.374.6408



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Contact: Crystal DeLeon, Marketing/Account Manager

Business: 360Generators specializes in helping vendors grow business through an innovative sales lead generation process. We have developed a service that delivers qualified, targeted end-customer leads for buyers needing commercial, residential, and marine generator solutions

Automated Solutions LLC (AE)

Lady Lake, FL

Phone: (352) 250-9283

Contact: John F. Desimone, MGMB

Business: Provides testing, calibrations, commissioning, inspection ser-

vice to the power generation industry.

Automatic Power Solutions LLC (DD)

Fort Smith, AR

(479) 459-3232 Fax: (479) 646-0854

Contact: Mike Corley, Owner

Business: We are generator distributors for Baldor. We are also war-

ranty repair and a full generator service center for Baldor.

Pocatello, ID

Phone: (288) 406-6973

Contact: Chad Lee Christensen, Student

Business: Student enrolled in the Power Generation Program at Idaho

State University.

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Dodd Technology and Engineering (AC)

Edmonds, WA

(425) 673-9900 Fax (425) 673-4934

Contact: Brian J. Dodd PE, Owner

Business: Since 1960 Dodd Technology and Engineering has provided engineering, architectural, construction management, building technology, and forensic investigative services to clients in commerce and industry, insurance, law, finance, real estate and government. Please visit our website www.dodd-usa.com for more information.

Duke Energy (AD)

Charlotte, NC

(704) 382-9197 Fax: (704) 382-4713

Contact: David C. Campbell, Engineering Manager

Business: Our group at Duke engineers, procures, installs and maintains diesel generators for our customer base. We have regulated and non-regulated offers for customers who desire business continuity services. We currently have 25-30 generators in our fleet.

Firwin Corporation..... (MF)

Toronto, ON Canada

(416) 745-9389 Fax (416) 745-0782

Contact: Sidney Tannenbaum, Marketing Manager

Business: Firwin is North America's foremost manufacturer of durable, high quality removable insulation blankets for engines, exhaust sys-

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New EGSA Members

Generator Services Inc. (DD) West Columbia, SC (803) 939-1470 Fax: (803) 939-1473 Contact: James Corbett. Owner Business: Dealers for Katolight and Onan. H & S Electric.....(CI) Cumberland, WI (715) 822-8879 Fax (715) 822-5833 Contact: Dustin Schell, Owner Business: We are an Electrical Construction Company that services Industrial, Commercial & Farms. We have recently been involved in sizing, setup and service of electrical generators. Our services include, but are not limited to: gen sales, service, sizing, setup, PTO generators and most recently wind generation. Hennig Enclosure Systems (MF) Rockford, IL (815) 316-9900 Fax: (866) 910-1784 Contact: Greg Champion, VP, Sales and Marketing Business: Hennig Enclosure Systems engineers and manufactures enclosure systems and fuel tanks for power generators. Four types of generator enclosures are available in many materials and provide sound attenuation. Our five fuel tank types are UL142-approved and include open-top dikes, closed-top dikes and secondary containment, free-standing day and sub-base tanks. Jus Sales Services (DD) Central Trinidad, West Indies (868) 486-5579 Fax: (868) 629-8988 Contact: Anthony James, Managing Director Business: Generator & engine supply and services. Represent Amercia's Generators & Triton Power LionHeart Engineering......(AE) Woodstock, IL (847) 291-1413 Fax (815) 338-7143 Contact: Donald R. Ritter, Service Manager

Business: LionHeart provides maintenance, testing and engineering

services on generators, ATS', paralleling switchgear and any generator

North Shore Generator Systems, Inc. (DD) Ronkonkoma, NY (631) 588-7800 Fax (631) 467-2722

Contact: John Gergela, President

Business: North Shore Generator Systems, Inc. is engaged in the business of sales and field service of emergency power systems for standby as well as prime power and automatic switchgear. We are a distributor of Baldor Generators.

Program Manager, Expeditionary Power Systems, USMC. (AD) Quantico, VA (703) 432-3572 Fax (703) 432-3532

Contact: Michael A. Gallagher, Program Manager Business: The Program Manager, Expeditionary Power Systems, Marine Corps Systems Command, is responsible for the procurement and lifecycle sustainment of tactical mobile electric power generation and distribution equipment used by U.S. Marine Corps Operating Forces to accomplish their mission. Portfolio of equipment includes generators ranging from 2 kW to 100 kW, distribution systems and load

Rypos, Inc. (MF) Holliston, MA (508) 429-4552 Fax: (508) 429-4553

Contact: Evan Ypsilants, Vice President, Sales

Business: Since our founding in 1997, our mission has been to develop innovative solutions for clean diesel power to meet current and future emission requirements. Rypos has developed an advanced selfregenerating filter system to reliably reduce diesel engine

University of Maryland-College Park. (AG) College Park, MD Fax: (301) 405-8082

(301) 405-8409

Contact: Rob Riesner, Manager, Electrical Services Business: The University of Maryland - College Park is the flagship campus of the University of Maryland system. It is one of the top public research universities in the United States. The University owns and operates approximately 80 standby generators with a generating capacity of approximately 17 MW.





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